

Notice of Allowability

Application No.

09/894,817

Examiner

Blanche Wong

Applicant(s)

LEE, JI-WOONG

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to June 28, 2001.
2. ☒ The allowed claim(s) is/are 1-5.
3. ☒ The drawings filed on 28 June 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date Jan21'04
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

On p. 4, ln. 9, -- care-off -- will be replaced by "care-of".

On p. 4, ln. 21, -- mobile node 200 -- will be replaced by "mobile node 300".

2. Claims 1-5 are allowed.

3. The following is an examiner's statement of reasons for allowance:

With regard to claim 1, the prior art of record fails to anticipate or make obvious "a method for support small group multicast in mobile IP ... where in case where the home agent receives an implicit multicast packet to be transmitted to the mobile node belonging to the foreign agent, the home agent shifts the received multicast packet to an explicit multicast packet including the IP address of the mobile node registered as a receiving part of the multicast packet to transmit it to the care-of address ..."

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Leung et al. (U.S. Pat No. 6,765,892) discloses a Foreign Agent that is configured to establish a data path between the Foreign Agent and a Home Agent (col. 4, ln. 5-6) and a Home Agent that is configured to establish a data path between a Foreign Agent and the Home Agent (col. 4, ln. 53-54). In the former scenario, the Foreign Agent provides information identifying the Home Agent associated with the mobile node to a multicast router process (col. 4, ln. 20-21). In the latter scenario, the Home Agent receives a join host group message and send the join host group message toward a source of multicast IP data packets (col. 4, ln. 58-60). The Home Agent may forward multicast data packets using a single encapsulation step (col. 4, ln. 65-66). However, Leung fails to show "where the home agent receives an implicit mulitcast packet to be transmitted to the mobile node belonging to the foreign agent, the home agent shirts the received multicast packet to an explicit multicast packet," as recited in claim 1.

Alriksson et al. (Pub. No. US2001/0024443, filed Dec. 20, 2000) discloses Mobile IP foreign agents are used as gateways between the ad hoc network and the Internet. In an ad hoc network, each mobile station operates not only as a host but also as a

router (para. [0002], ln. 5-8); and on-demand routing and processes apply (para [0004], ln. 4). However, Alriksson fails to show any type of multicast packeting.

Ton (Pub. No. US2002/0067704, filed Dec. 1, 2000) discloses a MIP, Mobile Internet Protocol, where each Home Agent will store locally the load information from other Home Agents and will exchange load information with the other Home Agents. However, Ton fails to show "where the home agent receives an implicit mulitcast packet to be transmitted to the mobile node belonging to the foreign agent, the home agent shirts the received multicast packet to an explicit multicast packet," as recited in claim 1, or any type of multicast packeting.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BW

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March 18, 2005



CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600